DOCUMENT RESUME

ED 475 600 PS 031 274

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TITLE	Poverty and the Development of African American Children: Testing an Adaptation of McLoyd's Theoretical Model with the NLSY.
PUB DATE	2003-04-24
NOTE	30p.; Paper presented at the 2003 Biennial Meeting of the Society for Research in Child Development (70th, Tampa, FL, April 24-27, 2003).
PUB TYPE	Reports - Research (143) -- Speeches/Meeting Papers (150)
EDRS PRICE	EDRS Price MF01/PC02 Plus Postage.
DESCRIPTORS	Academic Aptitude; At Risk Persons; *Behavior Problems; *Black Youth; *Children; Depression (Psychology); Emotional Adjustment; *Family Environment; Longitudinal Studies; Marital Satisfaction; Models; Parent Background; *Poverty; Predictor Variables; Receptive Language; Social Adjustment; Vocabulary Development
IDENTIFIERS	*African Americans; Emotional Distress; Marital Discord; Marital Quality; Mastery Motivation; National Longitudinal Survey of Youth

ABSTRACT

Based on McLoyd's (1990) model of African American children's development, this study examined the linkages between poverty, maternal psychological distress, marital conflict, the home environment, and children's outcomes among a sample of 805 African American 4- to 9-year-olds whose families were interviewed in 1992 as part of the National Longitudinal Survey of Youth. Findings revealed that poverty, psychological distress (as measured by maternal depression and low mastery), and a relatively unsupportive home environment increased the risk of child behavior problems. Contrary to expectations, the path between marital conflict and child behavior problems was not significant in this sample. An adaptation of McLoyd's model examined predictors of children's receptive vocabulary, indicating a direct effect of poverty on children's vocabulary even when maternal academic aptitude and HOME environment assessments were controlled. (Contains 35 references.) (Author/KB)

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ED 475 600

Poverty and the Development of African American Children: Testing an Adaptation of McLoyd's Theoretical Model with the NLSY

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ABSTRACT

Based on McLoyd's (1990) model of African American children's development, we examined the linkages among poverty, maternal psychological distress, marital conflict, the home environment, and children's outcomes using a sample of African American children from the NLSY (n = 805). Our analyses included two outcome measures, children's behavior problems and receptive vocabulary. As expected, poverty, psychological distress (as measured by maternal depression and low mastery) and a relatively unsupportive home environment increased the risk of child behavior problems. Contrary to expectations, the path between marital conflict and child behavior problems was not significant in this sample. An adaptation of McLoyd's model examined predictors of children's receptive vocabulary, indicating a direct effect of poverty on children's vocabulary even when maternal academic aptitude and HOME environment assessments were controlled.

Key words: poverty, African American, child behavior problems, marital quality, home environment, vocabulary

Poverty and the Development of African American Children:

Testing an Adaptation of McLoyd's Theoretical Model with the NLSY

Prior research has established that poverty is a significant risk factor in the lives of children. Poverty is associated with poor outcomes in many areas of development including physical health, language (e.g., receptive vocabulary), school achievement, and social-emotional adjustment (Luthar, 1999; McLoyd, 1998). The negative effects of poverty on development are evident when potentially confounding family and maternal characteristics (e.g., family structure, maternal IQ, maternal education) are controlled (Duncan, Brooks-Gunn, & Klebanov, 1994; Korenman, Miller, & Sjaastad, 1995; Smith, Brooks-Gunn, & Klebanov, 1997).

Although poverty is clearly predictive of problem outcomes in children, researchers continue to probe many important questions regarding poverty and development. One of these questions is: What processes mediate the relation between poverty and children's development? Put another way, how do the experiences of children in poverty differ from those of their non-poor peers, and do these differences in experiences account for the relation between poverty and development? The purpose of this study is to explore potential mediators between poverty and developmental outcomes among young African American children. The developmental outcomes of interest are receptive vocabulary and behavior problems.

There are many possible ways in which poverty can influence the development of children. Poverty can influence children's experiences and access to resources in many settings -

- the home, school, the neighborhood, child care, and medical facilities. Poverty can also influence family processes by creating stress related to economic hardship. In a test of a family stress model, economic pressure in African American families with 10-11-year-old children was found to be related to increased depression among caregivers, which predicted disrupted parenting practices (Conger et al., 2002). In addition, disruptive parenting practices predicted that children would have more behavior problems and would be less well-adjusted in school.

The key processes facilitating or constraining development may depend somewhat on the age of the child. For young children, the family home is an important context for development. Poverty may influence the resources available to children in the home (e.g., books and other sources of intellectual stimulation), the affective climate in the home (e.g., parental depression, conflict), and family processes such as parent-child interaction. McLoyd (1990) developed an influential theoretical model regarding the ways in which poverty may influence family processes and ultimately the social-emotional adjustment of African American children. Within the limits of the available data, we attempted to test the hypotheses proposed by McLoyd's theoretical model with the National Longitudinal Survey of Youth (NLSY; Center for Human Resource Research, 2000). In addition, we adapted McLoyd's model to examine potential mediators between poverty and children's receptive vocabulary while controlling for mothers' academic aptitude. Conceptual models for each of the outcomes of interest are presented in Figure 1.

Figure 1

McLoyd (1990) proposed that poverty and the stress that is associated with having insufficient resources can take a toll on the psychological well-being of parents. Poverty may contribute to depressive symptoms in parents (McLoyd, 1998). In other cases, it may lead to increased irritability (Elder, Nguyen, & Caspi, 1985). Poverty may also undermine parents' sense of mastery. Parents who struggle to get ahead with little success may begin to doubt their ability to influence important outcomes in their lives (Bandura, 1997; Pearlin & Schooler, 1978; Rotter, 1975). In this study, we examined the relation between poverty and two indicators of mothers' psychological distress — depressive symptoms and sense of mastery.

According to McLoyd's model, parental psychological distress, in turn, can influence the quality of care parents provide for their children. For example, parents who are depressed may interact less with their children, talk less to their children, and exhibit less positive affect. Similarly, parents with a low sense of mastery may invest less time and effort into caring for their children. If outcomes seem to be largely beyond the control of parents, some parents may see little value in making a greater investment in the parenting role. Thus, we expected that parents with depressive symptoms or a low sense of mastery would provide less supportive home environments for their children, as assessed with the widely used HOME inventory (Caldwell & Bradley, 1984).

For young children, quality of the home environment should influence development in many domains including receptive vocabulary and behavior problems. Prior research has shown that the quality of the home environment, as measured with the HOME inventory, is predictive of children's intelligence, achievement, and language capabilities including receptive vocabulary (Bradley & Corwyn, 1999). On average, parents from lower socioeconomic backgrounds

provide less enriched language environments for their children than more affluent and well-educated parents (Hoff-Ginsberg & Twardiff, 1995). Although less attention has been focused on the relation between overall home environment and behavior problems, there is evidence that aspects of the home environment such as parental warmth and disciplinary practices are correlated with children's social relationships and behavior problems (Bradley et al., 2001; author citation). Consistent with McLoyd's (1990) model and prior studies, we expected high scores on the HOME inventory to be positively related to children's receptive vocabulary scores and negatively related to behavioral problems.

Poverty not only influences the relation between parents and children but can also contribute to tension and friction between parents. Stress may contribute to increased conflict between parents in two-parent households (Elder et al., 1985). Although little research has been conducted on the relation between marital conflict and children's development in African-American families, we expected to find that martial conflict increased the risk of behavior problems among African American children. Several studies of European American families have shown that marital conflict is a risk factor for poor social-emotional adjustment in children (Amato & Keith, 1991). Parents who are distressed or preoccupied by marital conflict may be less involved and provide less consistent discipline for their children. An alternative hypothesis is that parents who do not have a satisfying relationship with their marital partners, invest more time and energy into their relations with their children (Brody, Pillegrini, & Sigel, 1986). In this case, marital conflict would have little effect on children's development or would indirectly (via parental involvement) contribute to positive outcomes in children.

To summarize, this study examines possible mediators between poverty and children's

development in African American families with the NLSY, a national data set. Based on McLoyd's (1990) theoretical model and subsequent refinements of the model (McLoyd, 1998), we examined two possible causal chains. First, poverty can affect parental psychological well-being, which in turn, influences quality of the home environment and ultimately the child's development. The second route of influence is through marital quality. In two parent families, poverty can lead to marital conflict, which can also influence home environment and children's development. Because of limited research on African American families, McLoyd had to draw heavily on studies of European American families when developing her model, and to date there is still relatively little research testing her hypotheses with African American samples (Conger et al., 2002). The NLSY data set provided us with an opportunity to test an adapted version of her model with a large sample of African American families. The NLSY also allows us to include a measure of the mothers' academic aptitude. This allowed us to examine the relation between the family process variables and children's receptive vocabulary while controlling for mothers' academic aptitude.

Method

Participants

Data from the National Longitudinal Survey of Youth (NLSY) were utilized to test our adaptation of McLoyd's (1990) theoretical model. The NLSY project began with a national sample that included 12,686 respondents between the ages of 14 and 21 years in 1979. African Americans and Hispanics were oversampled so that separate analyses could be conducted with these groups. The NLSY respondents were interviewed annually from 1979 to 1994, and every other year since 1994.

Starting in 1986, data have been collected on the children of the female respondents of the NLSY. Data on the children are collected every two years. The children were given a variety of age-appropriate measures that assessed their cognitive competence and behavioral adjustment. Data were also collected on aspects of the children's home environment. Attrition from the original sample has been comparatively low. Of the mothers who participated in the first round of the study, 90% were reinterviewed in 1992 (Center for Human Resource Research, 2000).

The subsample selected for this study comprised all African American children in the NLSY who were between the ages of 4 and 9 and their families who were interviewed in 1992 (N = 853). We decided to use data from 1992 because certain variables of interest (e.g., the Pearlin Mastery scale and the complete CES-D depression scale) were assessed with the NLSY sample only in that year. In addition, all children age four and over were assessed with both the Peabody Picture Vocabulary Test Revised (PPVT-R) and the Behavioral Problems Index in 1992; these are the two outcome variables for this study. Only data from children who had valid scores for the outcome variables in 1992 were used for this study (n = 805).

Although the mothers are representative of African American mothers who are in their age range, the children are not a representative sample of African American children between the ages of 4 and 9. For example, children born to older African American mothers are not included in this sample because of the sampling plan used in the NLSY (i.e., none of the mothers in the NLSY were over age 35 at the time these data were collected).

Measures

Dependent variables: Behavioral Problem Index and Peabody Picture Vocabulary Test

Revised. The two outcome variables used in this study were the Behavioral Problems Index (BPI; Peterson & Zill, 1986) and the Peabody Picture Vocabulary Test-Revised (PPVT-R; Dunn & Dunn, 1981). The child's behavioral adjustment was assessed with the BPI total standard score. The BPI includes 28 items (26 items for children not yet in school) each describing a potential behavioral problem (e.g., "He/she has trouble getting along with other children"). Mothers respond to each item with "often true," "sometimes true," or "not true." The scores of the 28 items are summed for the BPI total score and scores have been standardized for age and sex with a mean of 100 and a standard deviation of 15; the norms are based on data from the 1981 National Health Interview Survey (Center for Human Resource Research, 2000). Higher scores on these measures indicate a higher level of behavioral problems. The mean BPI score for our subsample was 107.40 (SD = 14.95).

The PPVT-R was used to assess the child's receptive vocabulary. In this test, the examiner reads each word aloud and the child is asked to choose which of four pictures best illustrates the word. The PPVT is widely used and "among the best-established indicators of verbal intelligence and scholastic aptitude across childhood" (Center for Human Resource Research, 2000, p. 77). Standard scores are based on a national mean of 100 and a standard deviation of 15. For this sample, the mean score was 81.15 and the standard deviation was 17.47.

Predictor variables. Poverty status was assessed from information collected during the 1992 interview with the mothers regarding income from all sources for the previous year. Federal income guides that take into consideration total family income and family size were used by the NLSY staff to code poverty status. The family received a score of 1 if it was in

poverty and a score of 0 if it was not in poverty.

The Center for Epidemiological Studies Depression Scale (CES-D; Radloff, 1977) was used as one indicator of the mother's psychological distress. This widely-used, 20-item measure was completed during the 1992 interview and assessed depressive symptoms during the prior week. Sample items are: "I felt sad" and "I was bothered by things that usually don't bother me." Each item is scored on a four-point scale (rarely or none of the time to most of the time), and items are summed to produce a total score. Higher scores indicate higher levels of depressive symptoms. Cronbach's alpha for our sample was .86.

The second indicator of the mother's psychological distress was the Pearlin Mastery Scale (Pearlin & Schooler, 1978). This 7-item measure assesses the mother's perception of her ability to master challenges and control events in her life. Sample items are: "I have little control over the things that happen to me" and "What happens to me in the future mostly depends on me." Item scores are summed to produce a total score with higher scores reflecting higher levels of mastery. Cronbach's alpha on this measure for our sample was .73.

Marital quality was assessed in 1992 with a marital conflict scale. Only 33% of the mothers in our sample responded to the marital conflict questions. Mothers who were in a partnered relationship as well as those who were legally married completed this section of the questionnaire. This measure assesses conflict in such areas as division of chores, money, children, showing affection, drinking, and in-laws. This measure consists of 9 items, with responses ranging from 1 (never) to 4 (often). The reliability coefficient for this scale was .73 for the present study sample.

The Home Observation for Measurement of the Environment -Short Form (HOME-SF), a

modification of Caldwell and Bradley's (1984) HOME inventory, was used as an indicator of the quality of care that the mothers provided for their children. Families in our sample were given the early childhood version of the HOME-SF if their children were under the age of 6, and the elementary school-age version if the children were 6 or older. Given that no national norms are available, the NLSY staff created standard HOME-SF scores based on the NLSY sample. This standard score can be utilized when the age range of the children requires that more than one version of the HOME-SF is used in a study. The HOME-SF for preschool children has 26 items and the version for elementary children has 27 items. Like the original versions of the HOME inventory, the shortened versions includes both self-report and observation items.

Control variable. Maternal academic aptitude was measured with the Armed Forces Qualification Test (AFQT), which was administered to the mothers during the 1980 phase of the study. The AFQT is part of the Armed Services Vocational Aptitude Battery (ASVAB), an instrument used by the military to determine eligibility for specific military positions. The AFQT is the sum of four subtests (word knowledge, arithmetic reasoning, paragraph comprehension, and part of the numeric operations section) of the ASVAB. Reliability coefficients (alternate form and internal consistency) for the AFQT subtests range from .7 to .9, and moderate to high correlations were reported between the AFQT subtests and similar subtests of other aptitude batteries (e.g., General Aptitude Test Battery). The AFQT was used as a control variable in our analysis with the PPVT-R as an outcome. This allowed us to examine predictors of the child's verbal skills while controlling for the mother's aptitude.

Results

The purpose of this study was to test McLoyd's theoretical model of child development among African-American families. Thus, we examined the relationships among poverty, psychological distress, marital conflict, home environment, and child social-emotional adjustment. An adaptation of McLoyd's model used children's receptive vocabulary scores as an outcome measure to explore cognitive development among African-American children. Three structural equation models are presented describing variations of McLoyd's original model following our presentation of some preliminary analyses.

Preliminary Analyses

Initially, we tested relationships between the study variables. Missing data were not imputed in these preliminary analyses. Thus, the number of cases included is less than our total sample size for the structural equation models.

A multiple analysis of variance (MANOVA) with poverty status as the between-subjects factor and AFQT, the Pearlin Mastery scale, CESD, HOME inventory, Behavior Problems Index, and PPVT-R as the dependent variables was significant, $F(6, 411) = 15.29$, $p < .001$. Follow-up univariate F-tests showed that poverty status was associated with lower maternal academic aptitude, $F(1, 416) = 53.06$, $p < .001$, lower maternal mastery, $F(1, 416) = 12.90$, $p < .001$, more maternal depression, $F(1, 416) = 9.75$, $p < .01$, a less positive home environment, $F(1, 416) = 45.14$, $p < .001$, more child behavior problems, $F(1, 416) = 13.44$, $p < .001$, and lower child language scores, $F(1, 416) = 26.19$, $p < .001$.

A second MANOVA examined the relationship between family poverty and marital conflict, including other study variables as dependent factors, for the subsample of respondents who completed the marital conflict items $F(7, 192) = 4.02$, $p < .001$. There were no significant

differences between poor and non-poor families in ratings of marital conflict; however, all other study variables were significantly related to poverty within this subgroup of families answering the marital conflict question (n = 269). A MANOVA examining study variables with child gender indicated no significant differences related to gender.

Bivariate Correlations

Correlations between study variables are displayed in Table 1. A positive home environment was associated with higher maternal academic aptitude and mastery, and lower maternal depression scores. Child behavior problems were associated with lower vocabulary scores, more marital conflict, a relatively unsupportive home environment, and several maternal characteristics (lower academic aptitude, higher depression, and lower mastery). Children with larger vocabularies were more likely to have relatively supportive home environments and mothers with higher academic aptitude and a stronger sense of mastery.

Table 1

Data Imputation

Missing data are likely to result in less accurate computations than when data are replaced by estimation of maximum likelihood (Rubin & Little, 1989). In this sample of African American children, varying amounts of missing items may skew our results. Specifically, 20% of the cells from study variables in our NLSY sample (n = 805) were empty. Missing data make inferences to the general population less meaningful. A complete data set is also required for performing structural equation modeling. Thus, we created substitutions for missing values with

a maximum likelihood method based on the Estimation Maximization (EM) algorithm (Dempster, Laird, & Rubin, 1977). Maximum likelihood methods estimate the means and covariance matrix of study variables, rather than simply estimating single missing values (Little & Rubin, 1987).

In addition to study variables, three consecutive years of poverty status (1990-1992) were used in the estimation process in order to reflect the effect of poverty over time. We tested models that included an average of poverty over three years in addition to models with current poverty status; however, model fit was not enhanced when we estimated poverty over a three-year period. Therefore poverty status at the time of the 1992 interview was used in the analysis reported in this article.

Structural Equation Modeling

Three models were fit with data describing the linkages among characteristics of African American children's environments and child outcomes. The first model, using the entire sample, tested McLoyd's model of the predictors of children's behavior problems while omitting the construct of "marital bonding" (McLoyd, 1990). This analysis included three exogenous variables measuring poverty, maternal depression and mastery. Home environment and child behavior problems (BPI) were the two endogenous variables. Figure 2 shows the results of this analysis by displaying the estimated standardized path coefficients. The χ^2 test was not significant, indicating a good fit, $\chi^2(1) = 3.21$, $p = .07$. Two additional indices also indicated that the interpretation of the estimated paths is acceptable (RMSEA = .052, GFI = .998).

Figure 2

As expected, maternal depression, maternal mastery, and family poverty were related to parental behavior, represented by the HOME environment. Covariances indicated medium effect sizes in the relations among these exogenous variables. Two direct paths from maternal depression to child behavior problems and from maternal mastery to child behavior problems were also significant. All displayed paths were significant; however, Cohen's convention for correlational effect sizes indicates the range for small effect sizes as .10 to .30 (Cohen, 1988). Thus, the effect size of the path from maternal mastery to child behavior problems ($\beta = -.09$) would not be considered important in an effect size matrix. Finally, the direct path between home environment and child behavior problems indicated that a supportive home environment was significantly related to fewer child behavior problems.

A second structural equation model represented McLoyd's original model, including poverty, psychological distress, marital conflict, parental behavior, and children's socioemotional problems. For this model test, we created a separate data set limited largely to children in two-parent families ($n = 269$). The structure of this model was similar to the first model; only marital conflict was added as an endogenous variable. Although the model exhibited goodness-of-fit, $\chi^2(6) = 4.12, p = .66$, the paths between marital conflict and the other two endogenous variables, home environment and child behavior problems, were not significant. In addition, the only significant direct path connected to marital conflict was from maternal depression ($\beta = -.32$). Thus, we did not consider the Marital Conflict Scale to be a useful addition to this particular model in terms of explaining child behavior problems.

The third model, an adaptation of McLoyd's model, described linkages among maternal academic aptitude, poverty, psychological distress, the home environment, and children's receptive vocabulary. Only cases with valid child vocabulary scores were included (n = 771). Maternal academic aptitude was the sole exogenous variable. Six endogenous variables included psychological distress, a latent variable comprised of depression and low mastery, and three additional observed variables--poverty status, the home environment, and child vocabulary.

Figure 3

In the final model, the χ^2 test confirmed the null hypothesis, indicating no difference between the predicted and observed data, $\chi^2(5) = 6.36$, $p = .27$. Two additional indices confirmed the goodness of fit (RMSEA = .019, GFI = .997). Figure 3 displays the standardized regression weights for tested paths. The two direct paths from maternal academic aptitude to psychological distress and from academic aptitude to poverty were both significant. The paths from the latent variable of psychological distress to the home environment and from the home environment to child vocabulary were also significant. Maternal aptitude had an indirect effect on home environment, via poverty status, and a direct effect on child vocabulary scores. Poverty had a direct effect on receptive vocabulary and also an indirect effect mediated by home environment. All paths displayed were significant.

Discussion

The primary objectives of this study were to examine: (1) McLoyd's model of the determinants of children's socioemotional problems within African American families, and (2)

an adaptation of McLoyd's model predicting African American children's vocabulary. McLoyd's (1990) model of the determinants of African American children's socioemotional problems was largely supported by NLSY data. As expected, mothers in poverty were more frequently depressed, and they were less likely to feel a sense of mastery. Mothers who were more depressed and who lived in poverty tended to provide less supportive home environments for their children, which in turn, predicted children's behavior problems. Thus, through family processes, poverty appears to increase the risk of behavior problems in African American children.

Interestingly, depressed mothers were also more likely to have children with behavior problems, even when poverty and the quality of the home environment were controlled. There are several plausible explanations for the significant relation between maternal depression and child behavior problems. The relation could be explained by shared genetic vulnerability or mediated by family processes not assessed by other variables in the model. Mothers who are relatively depressed may also view their children less favorably; mothers reported on both their depressive symptoms and their children's behavior problems in the NLSY.

There was a modest but significant association between marital conflict and behavior problems in our bivariate analysis, but contrary to expectations, we did not find a significant path between marital conflict and children's behavior problems in our structural equation model. Marital conflict is more likely to occur when mothers are experiencing psychological distress, and children are more likely to have behavior problems when mothers are depressed. However, marital conflict itself did not directly predict children's behavior problems.

Several possible explanations exist for the absence of relation between marital conflict

and child behavior problems. First, marital conflict may lead to some parents investing more time with their children. Some parents who are in a disconnected marriage may become more involved in their children's lives as an alternative, while other parents may be preoccupied with the marital problems and be less involved with their children. If parents respond quite differently to marital difficulties, marital conflict may not be predictive of parenting quality or home environment. Second, in some families marital conflict may be encapsulated so that the children are not exposed to or involved in the conflict between their parents (Hetherington, 1998). The marital conflict items in the NLSY assess areas of disagreement between parents, such as how often they disagree about money; however they do not assess how these disagreements are handled and if the disagreements expose the children to open hostility, such as fighting or belittling remarks, or other manifestations of marital tension. Third, most of the prior studies showing a relation between marital conflict and parenting problems were conducted with European American families, and this finding may not generalize to other groups. The involvement of extended family members in the lives of children may mitigate the effects of marital discord for some African American children (Staples, 1994).

The second outcome of interest was children's receptive vocabularies as assessed with the PPVT-R. We included this outcome because it seemed likely that McLoyd's theoretical model would be applicable to outcomes other than socioeomotional outcomes. Poverty is associated with poorer outcomes in the cognitive and language domains, and it seems plausible that family processes mediate the relation between poverty and these outcomes also. For the receptive vocabulary outcome, we modified McLoyd's model and included the mothers' academic aptitude (AFQT) as a control variable. High-achieving mothers may be less likely to

live in poverty, may provide more supportive home environments, and may have children with higher vocabulary scores for both genetic and environmental reasons. Thus, we examined the relations among the variables in McLoyd's model after adjusting for mother's academic aptitude.

Even with mothers' academic aptitude controlled, poverty and quality of the home environment were predictive of children's receptive vocabulary scores. Poverty also had an indirect effect on receptive vocabulary scores that was mediated by home environment. The direct effect of poverty on child language provides an argument in favor of programs that mitigate the detrimental effects of economic stress (Huston et al., 2001). Huston and colleagues found that the New Hope Project, an antipoverty program, had positive effects on boys' academic achievement and behavior. Family support programs, such as Parents as Teachers, and early childhood education intervention programs, such as Head Start, encourage language development and school readiness for children (Pfannenstiel, 1989; Ramey & Ramey, 1998; Schweinhart & Weikart, 1993; White, 199?). Other intensive studies of families have shown that the verbal environments parents provide for their children are strongly related to children's language development (Hart & Risley, 1992).

Considerable support was found in this study for McLoyd's model linking poverty to behavior problems and our adaptation of the model to include language development. We believe these findings are important because McLoyd's ideas were tested with a large national sample of African American families. As noted in the introduction, McLoyd had to draw heavily on studies of European American families when developing her model because of the limited number of relevant studies with African American samples. Since the time her model was developed, research testing her model is still limited although there are notable exceptions such

as the recent study of African American families in Iowa and Georgia (Conger et al., 2002).

The study also had some limitations that should be acknowledged. Missing data were a problem for some predictor variables, especially poverty status. To deal with this issue, we had to use data imputation procedures to estimate missing values. However, we also reran the SEM analysis using only cases with complete data, and the results of the analysis were very similar to those using imputed data. A second limitation is that the findings may not be generalizable to all African American families. The mothers in this sample are fairly representative of African American mothers in their age range, but the oldest mothers in this sample were in their mid 30s. Despite these limitations, we believe that this study adds to the literature in an important area. It has been well documented that a disproportionate number of African American families must cope with poverty in the US (McLeod & Shanahan, 1993). Therefore it is important to understand the impact of poverty on African American parents and children. The findings from this study suggest ways in which poverty contributes to the development of behavior problems and lower language scores. Both of these outcomes are likely to influence the degree to which the children are successful in school (Senechal & LeFevre, 2002).

Acknowledgements: The authors would like to thank Dr. Alex Von Eye for serving as a consultant regarding missing data imputation and structural equation modeling. The authors would also like to acknowledge the support they received from the Center for Human Resource Research staff at the 2001 NLSY Summer Workshop at Ohio State University.

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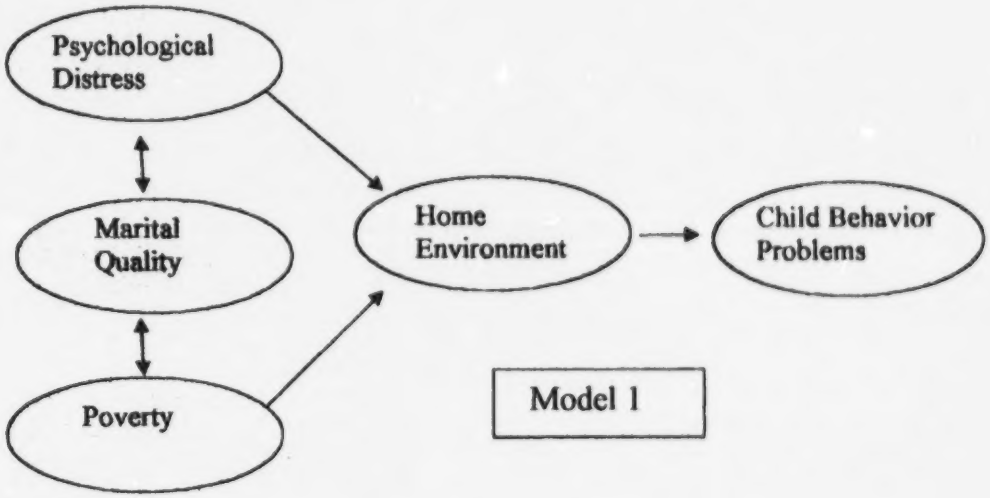
Table 1

Correlations of predictor and criterion variables.

Variable	1	2	3	4	5	6	7
1. AFQT	--						
2. CESD	-.19*** (563)	--					
3. Pearlin	.32*** (564)	-.40*** (579)	--				
4. Conflict	.06 (261)	-.32*** (269)	.16** (269)	--			
5. HOME	.24*** (538)	-.19*** (552)	-.22*** (552)	-.03 (255)	--		
6. BPI	-.15*** (564)	.32*** (579)	.23*** (580)	.18** (269)	-.26*** (766)	--	
7. PPVT	.35*** (511)	-.08 (523)	-.17*** (523)	-.12 (246)	.32*** (703)	-.19*** (728)	--

Note: Sample size for correlations is listed in parentheses.
*$p < .05$, **$p < .01$, ***$p < .001$.

Figure 1. Conceptual models for two outcomes: 1) child behavior problems, and 2) child receptive vocabulary.



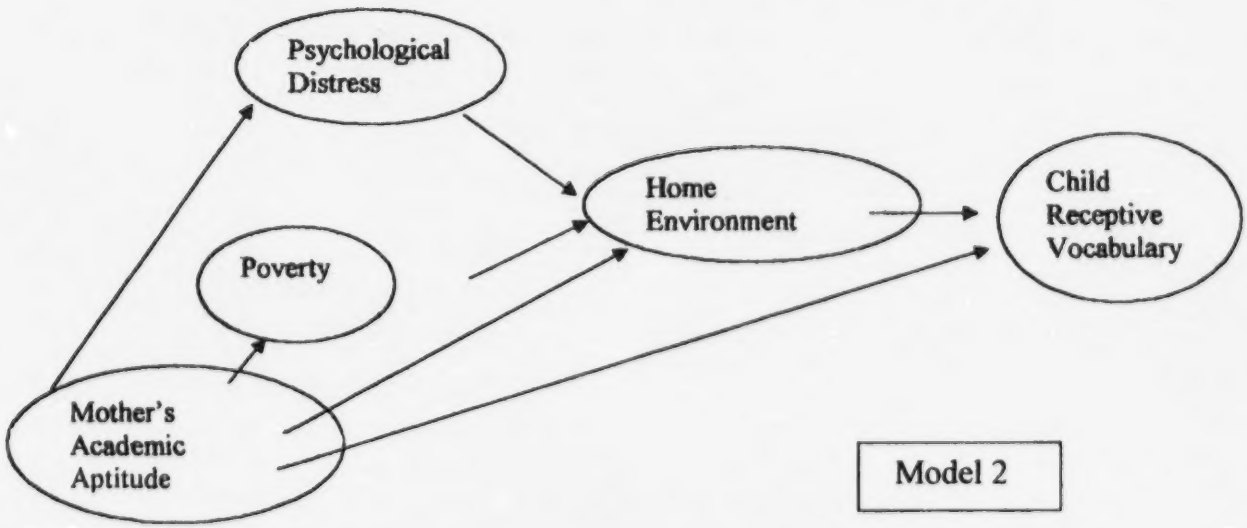


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Figure 2. Structural equation model using McLoyd's model, not including marital conflict.

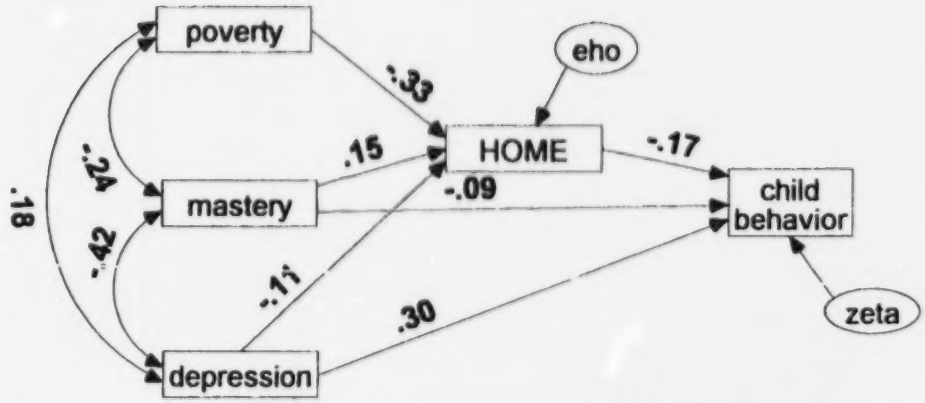

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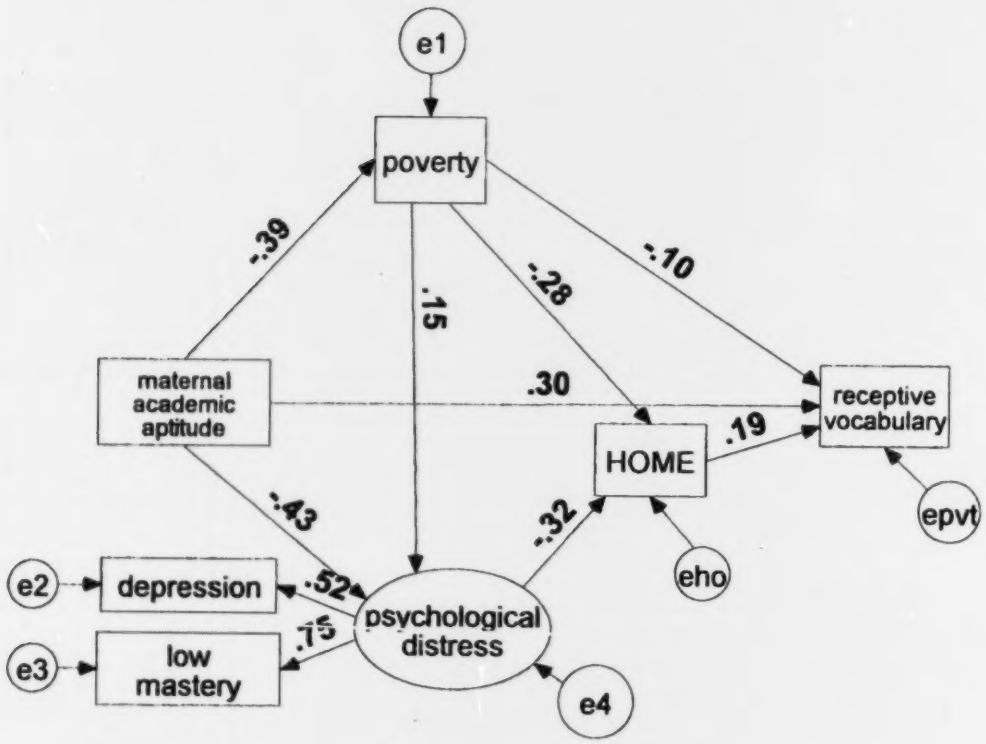
Figure 3. Structural equation model with receptive vocabulary (PPVT), including poverty as a predictor of psychological distress.



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